WHAT IS CLAIMED IS:

1. A method for driving a group of pixels in a display device to display an image of a respective frame based on an interlace signal for displaying an image of a respective frame from video signals of a plurality of fields,

said method comprising the steps of:

(I) generating driving signals based on video signals of a current field, so as to drive the group of pixels for displaying the frame image;

(II) modulating the driving signals for driving the group of pixels, by referring to video signals of a previous field;

(III) interpolating video signals for the previous field before modulating the driving signals, so as to generate video signals of one frame; and

(IV) interpolating video signals for the current field before modulating the driving signals, so as to generate video signals of one frame,

in said step (II), the driving signals being respectively modulated for the group of pixels by referring to video signals of the previous field used to generate the driving signals for the respective pixels.

2. The method as set forth in claim 1, wherein:

in at least one of said step (III) and said step (IV),

video signals are interpolated for a respective line of a field other than a target field of interpolation in such a manner that the interpolated video signals contain the same information as target field video signals of a frame line adjacent to the interpolated line.

3. The method as set forth in claim 1, wherein:

two fields make up one frame; and

in at least one of said step (III) and said step (IV), video signals are interpolated for a respective line of a field other than a target field of interpolation in such a manner that the interpolated video signals contain the same information as video signals obtained by averaging target field video signals respectively of a pair of frame lines adjacent to the interpolated line.

4. The method as set forth in claim 1, wherein:

two fields make up one frame; and

in at least one of said step (III) and said step (IV), video signals are interpolated for a respective line of a field other than a target field of interpolation in such a manner that the interpolated video signals contain the same information as target field video signals respectively of a pair of frame lines adjacent to the interpolated line, and that video signals for respective pixels of the

interpolated line are generated based on video signals for a plurality of pixels in one of the pair of frame lines and based on video signals for a plurality of pixels in the other line of the pair of frame lines.

5. The method as set forth in claim 1, wherein:

two fields make up one frame; and

in at least one of said step (III) and said step (IV), video signals are interpolated in a respective line of a field other than a target field of interpolation based on target field video signals respectively of a pair of frame lines adjacent to the interpolated line and based on video signals in adjacent fields of the target field.

6. The method as set forth in claim 1, wherein:

two fields make up one frame; and

the method further comprises the step of adjusting strength of modulation in said step (II) by referring to a result of comparison between video signals of the current field and video signals of an earlier of previous two fields.

7. The method as set forth in claim 6, wherein:

in said step of adjusting strength of modulation, modulation is stopped in said step (II) when the video signals of the current field substantially match the video

signals of the earlier of the previous two fields.

8. The method as set forth in claim 6, wherein:

in said step of adjusting strength of modulation, strength of modulation is gradually reduced from a full strength to zero strength according to a difference between the video signals of the current field and the video signals of the earlier of the previous two fields, if the difference falls within a predetermined range.

9. The method as set forth in claim 1, wherein:

in said step (II), the driving signals for the group of pixels are modulated so as to facilitate a grayscale level transition from the previous field to the current field; and

the grayscale level transition in said step (II) is facilitated to such an extent that, when a pixel undergoes a grayscale level transition from the previous field to the current field by repeating a cycle of grayscale level transition between a first grayscale level and a second grayscale level, an integrated value of luminance for the pixel takes an intermediate value between the first grayscale level and the second grayscale level by causing whichever faster of a response speed with the strongest level of facilitation for a first-to-second grayscale level transition and a response speed with the strongest level of

facilitation for a second-to-first grayscale level transition to approach whichever slower of the two response speeds.

10. The method as set forth in claim 9, wherein:

the grayscale level transition in said step (II) is facilitated in such a manner that a grayscale level transition with the slowest response speed with the strongest facilitation determines response speeds of other grayscale level transitions, with the slowest response speed substantially matching the other response speeds.

11. A driving device for a display device, comprising:

current-and-previous field video signal generating means for generating video signals for a current field and video signals for a previous field based on an interlace signal for displaying an image of a respective frame from video signals of a plurality of fields; and

driving signal generating means for generating driving signals for driving the group of pixels to display the frame image, the driving signals being generated according to the video signals of the current field and being modulated according to the video signals of the previous field,

said current-and-previous field video signal generating means including:

previous-field interpolating means for interpolating respective lines of the previous field so as to generate video signals of one frame for the previous field; and

current-field interpolating means for interpolating respective lines of the current field so as to generate video signals of one frame for the current field, and

said driving signal generating means respectively generating the driving signals for the group of pixels, so that the driving signals of the respective pixels are modulated by referring to the video signals of the previous field used to generate the driving signals of the respective pixels.

12. The driving device as set forth in claim 11,

wherein the interlace signal produces an image of one frame from images of two fields,

wherein the current-field interpolating means includes a line memory for storing video signals of one line of the current field, and for outputting the video signals of one line twice by doubling a frequency of a dot clock for the interlace signal, and

wherein the previous-field interpolating means includes:

a field memory for storing the video signals of respective lines of the current field and holding the stored video signals until a next field; and

control means, by referring to the output of the line memory, for causing the field memory to store the video signals of respective lines of the current field, and for causing the field memory to output the video signals of respective lines of the previous field twice at the frequency of the line memory.

13. The driving device as set forth in claim 11,

wherein the interlace signal produces an image of one frame from images of two fields,

wherein the current-and-previous field video signal generating means includes a field memory for outputting the interlace signal with a delay of one field,

wherein the current-field interpolating means includes a current-field line memory for storing video signals of one line of the current field, and for outputting the video signals of one line twice by doubling a frequency of a dot clock for the interlace signal, and

wherein the previous-field interpolating means includes a previous-field line memory for storing video signals of one line outputted from the field memory, and for outputting the stored video signals of one line twice at

the frequency of the current-field line memory.

14. The driving device as set forth in claim 11, further comprising:

corresponding-field video signal generating means for storing the video signals of the current field until input of a field having video signals on corresponding positions, and for outputting the stored video signals as corresponding-field video signals,

wherein the driving signal generating means compares the corresponding-field video signals with the video signals of the current field, and, based on a result of comparison, varies strength of facilitation of a grayscale level transition from the previous to current field, so as to generate the driving signals.

15. The driving device as set forth in claim 11, wherein the interlace signal produces an image of one frame from images of two fields,

wherein the current-field interpolating means includes a current-field line memory for storing video signals of one line of the current field, and for outputting the stored video signals of one line twice by doubling a frequency of a dot clock for the interlace signal, and

said driving device further comprises:

a field memory for storing the video signals of the current field until input of a later of next two fields;

control means for causing the field memory to output video signals of one line of the previous field alternately with video signals of one line of a previous-corresponding-field at the frequency of the current-field line memory; and

a field line memory for storing the video signals of one line of the previous-corresponding-field outputted from the field memory, and for outputting the stored video signals of one line of the previous-corresponding-field twice at the frequency of the current-field line memory, and

wherein the previous-field interpolating means includes a previous-field line memory for storing the video signals of one line outputted from the field memory, and for outputting the stored video signals of one line twice at the frequency of the current-field line memory, and

wherein the driving signal generating means includes:

comparing means for comparing the video signals of the current field outputted from the current-field interpolating means with the video signals of the previous-corresponding-field with respect to each pixel, and for outputting a result of

comparison for each pixel; and

adjusting means for adjusting, based on the result of comparison, strength of modulation for the driving signals of the respective pixels.

16. The driving device as set forth in claim 11,

wherein the interlace signal produces an image of one frame from images of two fields, and

wherein the current-field interpolating means includes a current-field line memory for storing video signals of one line of the current field, and for outputting the stored video data of one line twice by doubling a frequency a dot clock for the interlace signal, and

said driving device further comprises:

a field memory for storing the video signals of the current field until input of a later of next two fields; and

control means for causing the field memory to output the video signals of one line of the previous field alternately with video signals of one line of a previous-corresponding-field at the frequency of the current-field line memory, and

wherein the previous-field interpolating means includes a previous-field line memory for storing the video signals of one line outputted from the field memory, and for outputting the stored video signals of one line twice at

the frequency of the current-field line memory, and

wherein the driving signal generating means includes:

comparing means for comparing, with respect to each pixel, the video signals of the previous-corresponding-field with every other lines of the video signals outputted from the current-field interpolating means, and for outputting a result of comparison for each pixel;

a comparison-result line memory for storing the result of comparison for one line, and for outputting the stored result twice at the frequency of the current-field line memory; and

adjusting means for adjusting, based on the pixel-wise output of the comparison-result line memory, strength of modulation for the driving signals of the respective pixels.

17. A program for a computer for driving a group of pixels to display an image of a respective frame based on an interlace signal for displaying an image of a respective frame from video signals of a plurality of fields,

said program causing the computer to carry out the steps of:

(I) generating driving signals based on video signals

of a current field, so as to drive the group of pixels for displaying the frame image;

(II) modulating the driving signals for driving the group of pixels, by referring to video signals of a previous field;

(III) interpolating video signals for the previous field before modulating the driving signals, so as to generate video signals of one frame; and

(IV) interpolating video signals for the current field before modulating the driving signals, so as to generate video signals of one frame,

in said step (II), the driving signals being respectively modulated for the group of pixels by referring to the video signals of the previous field used to generate the driving signals of the respective pixels.

18. A recording medium with a program for a computer for driving a group of pixels to display an image of a respective frame based on an interlace signal for displaying an image of a respective frame from video signals of a plurality of fields,

said program causing the computer to carry out the steps of:

(I) generating driving signals based on video signals of a current field, so as to drive the group of pixels for

displaying the frame image;

(II) modulating the driving signals for driving the group of pixels, by referring to video signals of a previous field;

(III) interpolating video signals for the previous field before modulating the driving signals, so as to generate video signals of one frame; and

(IV) interpolating video signals for the current field before modulating the driving signals, so as to generate video signals of one frame,

in said step (II), the driving signals being respectively modulated for the group of pixels by referring to the video signals of the previous field used to generate the driving signals of the respective pixels.